

What is claimed is:

1. A method of digital watermarking an image comprising:  
5        adjusting the image in accordance with values in a first representation associated  
with a printing process;  
determining values to convey a digital watermark in the adjusted image;  
adjusting the values in accordance with a second representation associated with the  
printing process; and  
10       combining the adjusted change values and the image to produce a digital  
watermarked image.
2. The method of claim 1, wherein the first representation comprises a forward dot  
gain curve.  
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3. The method of claim 2, wherein the second representation comprises a backward  
dot gain curve.
4. The method of claim 3 wherein the backward dot gain curve comprises an  
20       inverse of the forward dot gain curve.
5. The method of claim 1 wherein the printing process comprises an offset printing  
press.

6. The method of claim 1 wherein the image is watermarked using a scale to black technique.

7. The method of claim 1 wherein said image is watermarked using a scale to white  
5 technique.

8. A method of steganographically hiding a signal in an image comprising:  
determining change values to represent the signal in the image; and  
altering color values of the image by an amount to achieve the change values,  
10 wherein the amount includes a compensation for a variation in a relationship of an  
input color value and at least one of ink and dye provided by a printing process to represent  
the input color value, and  
wherein the image includes the signal steganographically embedded therein when  
printed with the printing process.

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9. The method of claim 8, wherein the printing process comprises an offset printing  
process.

10. The method of claim 8, wherein the steganographically hiding comprises digital  
20 watermarking.

11. The method of claim 8, further comprising printing the image, wherein the  
printed image includes the signal steganographically embedded therein.

12. A method of processing an image to compensate for variation in a printing process, wherein the image includes a plurality of color values, said method comprising:

receiving a representation of a variation in a relationship of an input color value  
5 and at least one of ink and dye provided by the printing process to represent the input color value;

determining change values needed to alter the image to accommodate a digital watermark embedded therein;

adjusting the change values with the representation; and  
10 modifying the image with the adjusted change values to accommodate the digital watermark and to compensate for the variation.

13. The method of claim 12 wherein the printing process comprises an offset printing press.

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